

ABSTRACT OF THE DISCLOSURE

A backup memory, a DMA (direct memory access) controller, and a WDT (watch dog timer) are provided in addition to a CPU (central processing unit), a RAM (random access memory), and a peripheral circuit. The DMA controller exercises control so that
5 respective data of the CPU, RAM and peripheral circuit is saved in the backup memory
each time the CPU, being under normal operation, supplies a counter reset signal to the
WDT, and so that the data that has been saved in the backup memory is restored to the
CPU, the RAM and the peripheral circuit, respectively, if the WDT has detected a program
runaway and outputted a time-over signal. Therefore, even in a case where a program
10 runaway has occurred in the CPU, normal operation is permitted to be resumed from
midway in the program.